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DICTIONARY FILE UPDATES:   4 OCT 2010  HIGHEST RN 1245235-98-6

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http://www.cas.org/support/stngen/stndoc/properties.html

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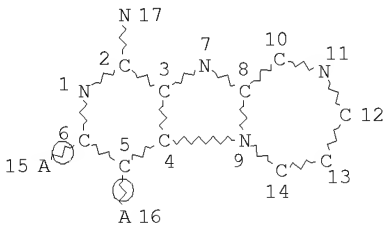


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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  17

STEREO ATTRIBUTES: NONE
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100.0% PROCESSED    3551 ITERATIONS                          667 ANSWERS
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FILE 'ZCAPLUS' ENTERED AT 18:19:51 ON 05 OCT 2010
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FILE COVERS 1907 - 5 Oct 2010  VOL 153 ISS 15
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FILE LAST UPDATED: 4 Oct 2010 (20101004/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2010

ZCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2010.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs hitrn fhitstr l12 tot

L12 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2010 ACS on STN
AN 2005:638879 ZCAPLUS
DN 143:153410
TI Preparation of piperazine, [1,4]diazepane, [1,4]diazocane, and [1,5]diazocane fused imidazo ring compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases
IN Kshirsagar, Tushar A.; Griesgraber, George W.; Celebi, Abdulaziz A.; Heppner, Philip D.
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 218 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO--2005066172	A1	20050721	2004WO-US0043474	20041222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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CA-----2552101	A1	20050721	2004CA-002552101	20041222
EP-----1699792	A1	20060913	2004EP-000815538	20041222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
CN-----1922178	A	20070228	2004CN-080042200	20041222
JP---2007530450	T	20071101	2006JP-000547424	20041222
IN---200602371	A	20070706	2006IN-000002371	20060628
US-20070167476	A1	20070719	2007US-000596895	20070116
PRAI 2003US-00533024P	P	20031229		
2004WO-US0043474	W	20041222		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OS CASREACT 143:153410; MARPAT 143:153410
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [RA, RB = independently H, halo, alk(en)yl, alkoxy, alkylthio, NH2 and derivs.; or RACCRB = (un)substituted fused hetero/aryl, fused 5- to 7-membered saturated ring; X = a bond, alkylene; Z = (un)substituted alkylene; with the proviso that the total number of C atoms contributed by X and Z = 1-3; Y = a bond, SO2, SO2-NH and derivs., CO, etc.; R = halo, OH, alk(en)yl, haloalkyl, alkoxy, alkylthio, NH2 and derivs.; R1 = H, (un)substituted alk(en/yn)yl, hetero/aryl, etc. with proviso; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, II was prepared via cyclocondensation of 1,2-diamine derivative III with chloroacetyl chloride, cyclization of imidazoquinoline, BOC-deprotection, chlorosulfonation of amine (not isolated) with MeSO2Cl, oxidation/amination with NH4OH, and TBDMS-deprotection. Certain I modulated cytokine biosynthesis by inhibiting production of interferon α and/or tumor necrosis factor TNF-α when tested in an in vitro blood cell system.

IT **1044675-88-8** **1044675-97-9** **1044676-02-9**
RL: PRPH (Prophetic)
(Preparation of piperazine, [1,4]diazepane, [1,4]diazocane, and [1,5]diazocane fused imidazo ring compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)

L12 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2010 ACS on STN (Continued)

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860167-12-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; prepn. of fused imidazo ring compds. as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)

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860167-50-6P, 9-(Methylsulfonyl)-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c][1,5]naphthyridin-6-amine
860167-52-8P, 9-(Methylsulfonyl)-3-(pyridin-3-yl)-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-6-amine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of fused imidazo ring compds. as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)

IT **860170-00-9P**, 6-Amino-9-(methylsulfonyl)-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-3-ol
860173-13-3P, 9,10,11,12-Tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-6-amine hydrochloride

L12 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2010 ACS on STN (Continued)

IT **860160-34-5P**, 11-[(tert-Butyldimethylsilyl)oxy]-9-(methylsulfonyl)-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-6-amine
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860167-51-7P, 3-Bromo-9-(methylsulfonyl)-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-6-amine
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RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of fused imidazo ring compds. as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)

IT **860160-35-6P**, 6-Amino-9-(methylsulfonyl)-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-1-ol
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L12 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2010 ACS on STN (Continued)

860173-16-6P, tert-Butyl 6-amino-11-[(tert-butyldimethylsilyl)oxy]-11,12-dinydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinoline-9(10H)-carboxylate **860173-17-7P**, 11-[(tert-Butyldimethylsilyl)oxy]-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-6-amine hydrochloride
860173-23-5P, 3-Bromo-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-6-amine
860173-25-7P, tert-Butyl 6-amino-3-benzyloxy-11,12-dinydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinoline-9(10H)-carboxylate
860173-36-0P, 3-Benzyloxy-9,10,11,12-tetrahydro-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-6-amine dihydrochloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of fused imidazo ring compds. as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)

IT **1043593-39-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of fused imidazo ring compds. as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)

IT **1044675-88-8**
RL: PRPH (Prophetic)
(Preparation of piperazine, [1,4]diazepane, [1,4]diazocane, and [1,5]diazocane fused imidazo ring compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)

RN 1044675-88-8 ZCAPLUS
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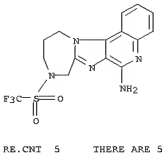

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L13 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2010 ACS on STN

AN 2006:677628 ZCAPLUS

DN 145:145757

TI Preparation of chiral fused [1,2]imidazo[4,5-c] ring compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases

IN Griesgraber, George W.; Kshirsagar, Tushar A.; Celebi, Abdulaziz A.; Johannessen, Sarah C.; Danielson, Michael E.; Rice, Michael J.; Wurst, Joshua R.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 257 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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PI WO--2006074003	A2	20060713	2005WO-US0047258	20051229
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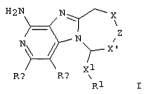
2005WO-US0047258	W	20051229		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS CASREACT 145:145757; MARPAT 145:145757

GI



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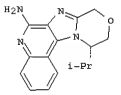

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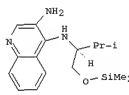

III

AB Title compds. I [X = a bond, straight or branched alkylene, optionally having a substituent at a C other than the C adjacent to a heteroatom; X' = straight or branched alkylene, optionally having a substituent at a C other than the C adjacent to a heteroatom; provided that the sum of the

L13 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2010 ACS on STN (Continued)

L13 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2010 ACS on STN (Continued)

ring C atoms contributed by X and X' = 1-3; Z = O, NH and derivs., N-SO2-NH- and derivs., etc.; X1 = a bond, alk(en/yn)ylene; R1 = (un)substituted alk(en/yn)yl, hetero/aryl, etc.; RA, RB = independently H, halo, alk(en)yl, alkoxy, etc.; or when taken together RA and RB form a (un)substituted fused hetero/aryl ring, or a (un)substituted fused 5 to 7 membered satd. ring; and their pharmaceutically acceptable salts], were prepd. as immunomodulators for inducing cytokine biosynthesis in animals (no data) and in the treatment of diseases including viral and neoplastic diseases (no data). For example, II was prepd. via cyclocondensation of diamine III (prepn. given) with Et 2-chloroethanimidoate•HCl, followed by TBDMS-deprotection in the presence of tetrabutylammonium fluoride/cyclization in THF, oxidn., and amination with NH4OH. Certain I modulated cytokine biosynthesis by inhibiting prodn. of interferon α and/or tumor necrosis factor TNF-α when tested in an in vitro blood cell system (no data).

IT **898818-25-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of chiral fused [1,2]imidazo[4,5-c] ring compds. as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)

IT **898818-29-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of chiral fused [1,2]imidazo[4,5-c] ring compds. as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)

IT **898818-25-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of chiral fused [1,2]imidazo[4,5-c] ring compds. as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)

RN 898818-25-2 ZCAPLUS

CN Formic acid, compd. with 9,10,11,12-tetrahydro-12-methyl-9-(methylsulfonyl)-8H-[1,4]diazepino[1',2':1,2]imidazo[4,5-c]quinolin-6-amine (1:?) (CA INDEX NAME)

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CRN 898818-24-1
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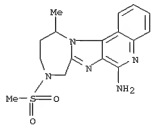

CM 2

CRN 64-18-6
CMF C H2 O2

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